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### Remarks

Reconsideration of the above-captioned application is respectfully requested. Objections have been lodged to the specification and abstract and all claims rejected under Section 112 based on an allegedly unclear phrase in the specification. Substantively, Claims 1-6, 11-21, and 23-26 have been rejected as being anticipated by Fisher et al. ("FiD 98"), and the remaining claims have been rejected as being unpatentable over FiD98 in view of the examiner's personal knowledge ("Official Notice").

To overcome the only evidence properly of record (FiD98), Claim 1 has been amended to recite specific types of interactions between elements in a register (namely, borrows and carries) as disclosed on, e.g., page 16 of the specification, last paragraph. Independent Claim 7 has been amended to more generically refer to interactions between elements as such, whereas independent Claim 11 has been amended to specifically recite that the data elements can carry from each other, and a carry propagating left without a previous borrow having occurred cannot happen and further wherein a borrow can only follow a borrow in underflow conditions such that in any one processing cycle, at most one borrow occurs from each element in the register, as also disclosed on page 16. Claims 1-29 remain pending.

### Objections to the Abstract

The Abstract has been objected to under MPEP §608.01(b) because it "should not" refer to the purported merits of the invention. The objection is noted; however, the cited section of the MPEP indeed uses the advisory language "should not", as opposed to the mandatory language "shall not" or "must not". Since the Commissioner could have but did not elect to cast the prohibition against merits of the invention

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in the Abstract in mandatory terms, patent applicants are free to consider and adopt or not the advisory guidance.

### Objections to the Specification

The examiner's remarks about respecting trademark rights are noted. In the present specification, trademarks are either specifically identified as such (e.g., AS 400) or are capitalized to indicate that they are trademarks (e.g., Unix, Windows, etc.) because Applicant, too, is respectful of trademark rights.

The objection under 37 C.F.R. §1.79 to the phrase "all structural and functional equivalents to the elements of the above-described preferred embodiment that are known or later come to be known to those of ordinary skill in the art are expressly incorporated herein by reference and are intended to be encompassed by the present claims" is misplaced. By its express provisions, Rule 79 pertains to a reservation of subject matter *disclosed in a patent application but not claimed*. The objected-to language says nothing about reserving subject matter disclosed in the present application but not claimed. Accordingly, the objection is without legitimate regulatory basis.

The Examiner's remarks that the use of "means for" language does not "automatically" invoke the sixth paragraph of Section 112 is correct, and Applicant in fact has not used the legally incorrect term "automatically", because use of "means for" language only *presumptively* invokes the sixth paragraph of Section 112, Micro Chem. Inc. v. Great Plains Chem. Co., 194 F.3d 1258 (Fed. Cir. 1999).

### Rejections Under 35 U.S.C. §112, First and Second Paragraphs

All claims have been rejected under 35 U.S.C. §112, first and second paragraphs as failing to comply with the enablement requirement and as being indefinite because of the phrase in the specification "reference

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to an element in the singular means "at least one". Confusion and uncertainty are being concocted when there are none. Consider the allegation that it is unclear, in light of the above phrase, whether the term "single register" in Claim 1 means exactly one register or multiple registers. What the language from the specification means in the context of Claim 1 is that simply because "a" single register is claimed, an infringing computer may have more than one "single" register, as long as at least first and second signed, multi-bit data elements are established in at least a first register as recited in the claim. There is no way the claim can be read to permit the use of more than one single register to store the recited first and second signed, multi-bit data elements, although the skilled artisan is alerted by the referenced language in the specification that Applicant does not intend to limit the invention to a computer having just one register that could possibly store first and second signed, multi-bit data elements. Far from rendering the claim indefinite, this language clarifies the scope of the claim.

Likewise, the allegation that the enablement requirement has not been met on the ground that *some* hypothetical claim constructions are not enabled is not well grounded, because as stated above, the hypothetical claim constructions are pinned on an unreasonable reading of the plain language of the claims, see MPEP §2111.01 (claim terms cannot be interpreted using *any* broad construction but instead must be interpreted as one skilled in the art would interpret them). Indeed, the examiner's admission on the record that "the plain language" of the claim refers to both multi-bit data elements being in exactly one register destroys the rejection under Section 112.

Rejections Under 35 U.S.C. §102

Claims 1-6, 11-21, and 23-26 have been rejected under 35 U.S.C. §102 as being anticipated by FiD 98 (the "SWAR" paper) wherein the separate elements being processed in a single register are not allowed

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to interact with each other by, e.g., carrying or borrowing. Instead, as indicated in the enclosed Rul 132 declaration, in the SWAR system the elements ("fields") are isolated from each other (page 5, top, discussing partitioned operations) either by "spacer bits" (page 6, particularly last paragraph) or by using additional instructions (pages 7 and 8). Nowhere does the SWAR paper suggest otherwise. In contrast, the present invention as now claimed permits and indeed envisions such interaction. The rejections have been overcome.

#### Rejections Under 35 U.S.C. §103

Claims 5, 7-10, 22, and 27-29 have been rejected under 35 U.S.C. §103 as being unpatentable over FiD98 in view of various and sundry takings of "Official Notice". For the reasons set forth above, the present claims are patentable.

Moreover, "official notice unsupported by documentary evidence should be taken only when the facts asserted to be well known are capable of instant and unquestionable demonstration of being well known so as to defy dispute" (MPEP §2144.03, approving noticing that the intensity of a flame can be adjusted in accordance with heat requirements). As further stated in the MPEP, "assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art *must always* be supported by a citation" (emphasis mine). This is plainly the case here. A prior showing of each and every fact asserted to be well known is hereby seasonably requested under MPEP §2144.03.

Still further, several statements exist in the Section 103 rejections that do not seem to follow the stated ground for rejection (unpatentability over FiD98 in view of Official Notice). For example, the rejections of Claims 8-10, 22, 27, and 28 do not mention Official Notice at all, but point to specific teachings in FiD98. Are these anticipation rejections? If so, why have they been cast in terms of obviousness? If they are

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obviousness rejections, why have the guidelines of MPEP §2143 not been adhered to, i.e., why has no discussion been presented of (1) the prior art motivation to modify FiD98, (2) the expectation of success of the modification, in addition to (3) where all claim limitations are found in the prior art?

The Examiner is cordially invited to telephone the undersigned at (619) 338-8075 for any reason which would advance the instant application to allowance.

Respectfully submitted,



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